

1           1. A package for an integrated circuit chip adapted  
2 to operate at microwave frequencies, comprising:  
3           an electrically conductive lead frame having  
4 electrical leads extending outwardly from an inner region;  
5           a base section adhesively affixed to a bottom  
6 surface portion of the lead frame, portions of the  
7 electrical leads extending outwardly from the base section;  
8           a plastic cover; and  
9           wherein the base section and the cover are  
10 configured to provide a cavity when the cover and the base  
11 section are affixed with the integrated circuit chip being  
12 encapsulated within the provided cavity.

1           2. The package recited in claim 1 wherein the base  
2 section comprises a dielectric member.

1           3. The package recited in claim 2 wherein the base  
2 section includes a conductive member affixed to the  
3 dielectric member.

1           4. The package recited in claim 1 wherein the cover  
2 has a recess disposed within sidewalls and wherein ends of  
3 the sidewalls are affixed to the base section.

1           5. The package recited in claim 1 wherein the cover  
2 is configured to increase surface tension with an adhesive  
3 disposed between the cover and the lead frame.

1           6. The package recited in claim 5 wherein the cover  
2 is configured with a ridge to increase the surface tension.

1           7. The package recited in claim 1 wherein the base  
2 section is configured to increase surface tension with an

3 adhesive disposed between the base section and the lead  
4 frame.

1 8. The package recited in claim 7 wherein the base  
2 section is configured with a ridge to increase the surface  
3 tension.

1 9. The package recited in claim 6 wherein the  
2 adhesive projects towards an interior of the package a  
3 distance in the order of 1% of the width of an exterior  
4 length of the package.

1 10. The package recited in claim 8 wherein the  
2 adhesive projects towards an interior of the package a  
3 distance in the order of 1% of the width of an exterior  
4 length of the package.

1 11. A method for packaging an integrated circuit  
2 chip adapted to operate at microwave frequencies, comprising  
3 the steps of:

4 providing a lead frame having: electrical leads  
5 extending outwardly from an inner region of the lead frame;  
6 adhesively affixing a base section to the lead  
7 frame with portions of the electrical leads extending  
8 outwardly from the base;

9 connecting electrical wires between the  
10 integrated circuit chip and the electrical leads; and

11 affixing a cover to provide the package with  
12 such integrated circuit chip being disposed within a cavity  
13 formed by affixed cover and base section.

1 12. A method for packaging an integrated circuit  
2 chip adapted to operate at microwave frequencies, comprising  
3 the steps of:

4 providing a lead frame having a plurality of  
5 sites therein, each site having: electrical leads extending  
6 outwardly from an inner region of the site;

7 adhesively affixing each one of a plurality of  
8 plastic base section over a corresponding one of the site;

9 connecting electrical wires between the  
10 integrated circuit chip at each one of the plurality of  
11 sites and the electrical leads at the corresponding one of  
12 the sites; and

13 adhesively affixing covers to encapsulate each  
14 one of the integrated circuits and the electrical wires  
15 connected thereto within a cavity formed by the  
16 corresponding one of the plurality of the affixed  
17 corresponding one of the covers.

1 13. A package for an integrated circuit chip  
2 adapted to operate at microwave frequencies, comprising:  
3 an electrically conductive lead frame having  
4 electrical leads adapted for electrical connection to the  
5 integrated circuit;

6 a base section having;

7 a dielectric member;

8 a conductive member;

9 wherein the dielectric member has an  
10 aperture disposed in registration with an inner region of  
11 the lead frame and the conductive member has one upper  
12 portion thereof adhesively affixed to a bottom portion of the  
13 dielectric member and another upper portion electrically  
14 connected to a bottom ground plane conductor of the

15 integrated circuit, such integrated circuit chip being  
16 disposed in registration with the aperture;  
17 wherein the dielectric member is disposed  
18 between the lead frame and the conductive member;  
19 a plastic cover; and  
20 wherein the base section and the cover are  
21 configured to provide a cavity when the cover and the base  
22 section are affixed with the integrated circuit chip being  
23 disposed with such provided cavity and with a bottom surface  
24 portion of the conductive member being exposed exteriorly of  
25 the package.

1 *Sub* 14. A method for packaging an integrated circuit  
2 *By* chip adapted to operate at microwave frequencies, comprising  
3 the steps of:

4 providing a lead frame having electrical leads  
5 extending outwardly from an interior region of the lead  
6 frame;

7 electrically connecting a conductive member of  
8 a base section to a bottom ground plane conductor of the  
9 integrated circuit with an apertured dielectric disposed  
10 between the lead frame and the conductive member and the  
11 aperture in registration with the integrated circuit chip;

12 connecting electrical wires between the  
13 integrated circuit chip and the electrical leads;

14 affixing a plastic cover to provide a package  
15 for the integrated circuit chip with such integrated circuit  
16 chip being disposed within a cavity formed by the affixed  
17 cover and with a portion of the electrically conductive  
18 member being exposed exteriorly of the package.

1 15. A method for packaging an integrated circuit  
2 chip adapted to operate at microwave frequencies, comprising  
3 the steps of:

4 providing a lead frame having electrical leads  
5 extending outwardly from an inner region of the lead frame  
6 and a dielectric member of a base section, such dielectric  
7 member having an aperture;

8 connecting electrical wires between the  
9 integrated circuit chip and the electrical leads and a  
10 bottom ground plane conductor of the integrated circuit chip  
11 to an electrically conductive member of the base section  
12 with the integrated circuit chip being disposed in  
13 registration with the aperture;

14 adhesively affixing the base section and a  
15 cover to provide a package for the integrated circuit chip  
16 with such integrated circuit chip being disposed within a  
17 cavity formed by the base section and the cover and with a  
18 portion of the electrically conductive member being exposed  
19 exteriorly of the package.

1 16. A package an integrated circuit chip adapted to  
2 operate at microwave frequencies, such package comprising:

3 a lead frame having electrical leads extending  
4 outwardly from an inner region of the lead frame;

5 a base section having:

6 a dielectric having an aperture;

7 an electrically conductive member having  
8 an upper surface adapted for electrical connection to a  
9 bottom ground plane of the integrated circuit chip when the  
10 integrated circuit chip is in registration with the  
11 aperture;

12 a dielectric cover, such cover and base section  
13 being configured to provide a cavity for the integrated

- 14 ~~circuit chip~~ when the base section and the cover are affixed  
15 and to expose a ~~bottom~~ portion of the conductive member  
16 exteriorly of the package.

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